DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-018482
Date Inspected: 03-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1100
Location: Job Site

CWI Name: John Pagliero

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Section

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

1) At weld joint 6E/7E – LS-1 thru 6, inside the OBG section this QA Inspector verified the status of production welding and QC inspections. See below for details.

2) At weld joint 7E/8E – LS-1 thru 6, inside the OBG section this QA Inspector verified the status of production welding and QC inspections. See below for details.

3) At weld joint 5E/6E – LS-4 thru 6, inside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) was starting to perform weld repair excavations.

4) At weld joint 6EPP46.5-E2-S, inside the OBG section: ABF welding personnel Wen Han Yu (#6317) was performing production welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector John Pagliero was monitoring the work.

At transverse field splice 6E/7E this QA Inspector performed a verification of the status of production welding and QC inspections for Longitudinal Stiffeners (LS) number 1 thru 6. The following was observed.

LS-1thru 3: Welding appeared to be completed, both weld faces appeared to be ground flush, the transition between the height differences between the two plates at the bottom appeared to ground and tapered as required, the weld access (rat hole) at the top of the weld appeared to be ground and generally completed. This QA Inspector observed the welding tracking map adjacent to the weld indicated welding had been completed many days previous to this date but was not marked indicating a final visual inspection had been performed. This QA Inspector asked QC Inspector John Pagliero the status of the QC final visual inspection and was informed it could be performed. This QA Inspector randomly observed as QC Inspector John Pagliero performed a visual inspection and marked the applicable weld tracking map adjacent to each weld accepting the final visual inspection. This QA Inspector performed a random visual verification and the work appeared to comply with the contract requirements.

LS-4: This QA Inspector observed markings the full length of the weld on the South face weld toe, which indicated additional welding was required. During a conversation with QC Inspector John Pagliero it was confirmed additional welding was required to fill and area at the toe of the weld where excessive grinding had been performed.

LS-5: This QA Inspector observed welding appeared to have been completed and the weld was in the as welded condition which required grinding. This was verbally confirmed by QC Inspector John Pagliero.

LS-6: This QA Inspector observed markings on the North face of the weld, which indicated additional grinding was required. This was verbally confirmed by QC Inspector John Pagliero.

At transverse field splice 7E/8E this QA Inspector performed a verification of the status of production welding and QC inspections for Longitudinal Stiffeners (LS) number 1 thru 6. The following was observed.

LS-1: This QA Inspector observed markings on the top weld access (rat hole) and on the bottom transition area where there was a height difference, which indicated additional grinding was required. This was verbally confirmed by QC Inspector John Pagliero.

LS-2 and 3: Welding appeared to be completed, both weld faces appeared to be ground flush, the transition between the height differences between the two plates at the bottom appeared to ground and tapered as required, the weld access (rat hole) at the top of the weld appeared to be ground and generally completed. This QA Inspector observed the welding tracking map adjacent to the weld indicated welding had been completed many days previous to this date but was not marked indicating a final visual inspection had been performed. This QA Inspector asked QC Inspector John Pagliero the status of the QC final visual inspection and was informed it could be performed. This QA Inspector randomly observed as QC Inspector John Pagliero performed a visual inspection and marked the applicable weld tracking map adjacent to each weld accepting the final visual inspection. This QA Inspector performed a random visual verification and the work appeared to comply with the contract requirements.

LS-4: This QA Inspector observed welding appeared to have been completed and the weld was in the as welded condition which required grinding. This was verbally confirmed by QC Inspector John Pagliero.

LS-5: This QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) performing production welding using the SMAW process. This QA Inspector observed the electric ceramic blankets were being used to

provide preheat. This QA Inspector used a temperature indicating marker to confirm the preheat temperature was greater than 100° C. This QA Inspector observed QC Inspector John Pagliero verify the following welding parameters: 121 amperes using a 3.2 mm diameter E9018H4R electrode. This QA Inspector observed the electrode storage container adjacent to the work station was on and indicated the internal temperature was greater than 250° F. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-1012-3.

LS-6: This QA Inspector observed welding appeared to have been completed and the weld was in the as welded condition which required grinding. This was verbally confirmed by QC Inspector John Pagliero.

At weld joint 5E/6E – LS-4 thru 6, inside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) moving equipment, ventilation ducts and setting up to been excavations for weld repairs. This QA Inspector observed grinding on LS-4 but did not observe the completed excavation or any welding. This information was provided in a turnover to the QA Inspector on the next shift.

At weld joint 6EPP46.5-E2-S, inside the OBG section this QA observed ABF welding personnel Wen Han Yu (#6317) was performing production welding using the SMAW process. QC Inspector John Pagliero informed this QA Inspector the welding parameters were 133 amperes. This QA Inspector observed 3.2 mm diameter E7018H4R electrodes were being used. The work observed appeared to comply with ABF-WPS-D15-1070rev-1.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer